

AMENDMENTS

IN THE CLAIMS:

1 – 12. (Cancelled)

13. (Previously Presented) A light-emitting ceiling tile comprising a ceiling tile substrate and a planar light-emitting subassembly shaped like the ceiling tile substrate and disposed on the ceiling tile substrate in a laminar arrangement, the subassembly comprising light-emitting group IV nanostructures, wherein the ceiling tile substrate comprises two opposing flat faces and a perimeter, and the light-emitting subassembly comprises two opposing flat faces and a perimeter.

14. (Original) The light-emitting ceiling tile according to claim 13, wherein the light-emitting subassembly comprises a first electrical insulation layer, upon which is disposed a first electrode layer, upon which is disposed a light-emitting layer which comprises the light-emitting group IV nanostructures, upon which is disposed a second electrode, upon which is disposed a second electrical insulation layer.

15. (Original) The light-emitting ceiling tile according to claim 14, wherein the first electrical insulation layer and the first electrode layer are substantially transparent to the light emitted by the light-emitting layer.

16. (Original) The light-emitting ceiling tile according to claim 13, wherein the ceiling tile is adapted to provide contact with a voltage source.

17. (Cancelled)

18. (Original) The light-emitting ceiling tile according to claim 13, further comprising a reflective layer.

19. (Original) The light-emitting ceiling tile according to claim 13, further comprising an electron transport layer and a hole transport layer.

20 – 21. (Cancelled)

22. (Previously Presented) The light-emitting ceiling tile according to claim 13, wherein the group IV nanoparticles are core-shell nanoparticles.

23. (Previously Presented) The light-emitting ceiling tile according to claim 13, wherein the group IV nanoparticles are core-shell nanoparticle comprising silicon.

24 – 29. (Cancelled)

30. (Currently Amended) The light-emitting ceiling tile according to claim 13, wherein the ~~sub-~~assembly subassembly emits white light.

31. (Cancelled)

32. (Original) A subassembly for use in a light-emitting ceiling tile, the subassembly comprising a first electrode layer, a light-emitting layer which comprises light-emitting group IV nanostructures, and a second electrode layer, wherein the subassembly comprises two opposing faces and a perimeter edge, and wherein the first electrode layer is transparent to the light emitted by the light-emitting layer.

33. (Currently Amended) The subassembly according to claim ~~32~~ 67, wherein the subassembly is adapted to provide contact with a voltage source.

34. (Currently Amended) The subassembly according to claim ~~32~~ 67, wherein the nanostructures are nanoparticles.

35. (Currently Amended) The subassembly according to claim ~~32~~ 67, further comprising a reflective layer.

36. (Currently Amended) The subassembly according to claim ~~32~~ 67, further comprising an electron transport layer and a hole transport layer.

37. (Original) The subassembly according to claim 34, further comprising a reflective layer.

38. (Original) The subassembly according to claim 34, further comprising an electron transport layer and a hole transport layer.

39. (Original) The subassembly according to claim 37, further comprising an electron transport layer and a hole transport layer.

40. (Cancelled)

41. (Cancelled)

42. (Currently Amended) The A method of making a light-emitting subassembly comprising combining (a) a light-emitting layer comprising light-emitting group IV nanoparticles, (b) first and second electrode layers, and (c) first and second electrical insulation layers, said insulation layers adapted to be laminally disposed on a building panel, wherein the layers (a) and (b), and (c) are disposed between the first and second electrical insulation layers are in a laminar arrangement, ~~wherein such that~~ the first electrode is disposed on the first electrical insulation layer, the second insulation layer is disposed on the second electrode, and the first electrode and the first electrical insulation layer are transparent.

43. (Previously Presented) Use of the ceiling tile according to claim 13 for emergency lighting.

44. (Previously Presented) Use of the ceiling tile according to claim 13 for in-door lighting.

45. (Previously Presented) Use of the ceiling tile according to claim 13 for track lighting.

46. (Previously Presented) Use of the ceiling tile according to claim 13 for direct lighting of an airplane interior.

47 – 51 (Cancelled)

52. (Previously Presented) The light-emitting ceiling tile according to claim 14, wherein the group IV nanostructures are core-shell nanoparticles.

53. (Previously Presented) The light-emitting ceiling tile according to claim 14, wherein the group IV nanostructures are core-shell nanoparticles comprising Si.

54. (Previously Presented) The light-emitting ceiling tile according to claim 13, wherein the group IV nanostructures are Si nanoparticles.

55. (Previously Presented) The light-emitting ceiling tile according to claim 13, wherein the group IV nanostructures are Ge nanoparticles.

56. (Previously Presented) The light-emitting ceiling tile according to claim 13, wherein the group IV nanostructures are SiGe alloy nanoparticles.

57. (Currently Amended) The subassembly according to claim ~~32~~ 67, wherein the group IV nanostructures are Si nanoparticles.

58. (Currently Amended) The subassembly according to claim 32 67, wherein the group IV nanostructures are Ge nanoparticles.

59. (Currently Amended) The subassembly according to claim 32 67, wherein the group IV nanostructures are SiGe alloy nanoparticles.

60. (Currently Amended) The subassembly according to claim 32 67, wherein the group IV nanostructures are core-shell nanoparticles.

61. (Currently Amended) The subassembly according to claim 32 67, wherein the group IV nanostructures are core-shell nanoparticles comprising Si.

62. (Currently Amended) The method of according to claim 42, wherein the group IV nanostructures are Si nanoparticles.

63. (Currently Amended) The method of according to claim 42, wherein the group IV nanostructures are Ge nanoparticles.

64. (Currently Amended) The method of according to claim 42, wherein the group IV nanostructures are SiGe alloy nanoparticles.

65. (Currently Amended) The method of according to claim 42, wherein the group IV nanostructures are core-shell nanoparticles comprising Si.

66. (Currently Amended) The method of according to claim 42, wherein the group IV nanostructures are core-shell nanoparticles comprising Si.

67. (New) A subassembly for a light-emitting panel comprising:

a first optically transparent insulating substrate material and a second insulting substrate material, wherein the substrate material is adapted to be laminally disposed on a building panel;

a first optically transparent electrode layer and a second electrode layer, wherein the first electrode material is laminally disposed on the first insulating substrate, and the second electrode material is laminally disposed on the second insulating substrate; and

a light-emitting layer disposed between the first and second insulating substrates, wherein the light-emitting layer comprises group IV nanostructures.

68. (New) The subassembly of claim 67, wherein the group IV nanostructures have an average diameter of between about 0.5 nm to about 15 nm

69. (New) The subassembly of claim 67, wherein the group IV semiconductor nanostructures are organically capped nanostructures.

70. (New) A subassembly for a light-emitting panel comprising:

a first optically transparent insulating substrate material and a second insulting substrate material, wherein the substrate material is adapted to be laminally disposed on a building panel;

a first optically transparent electrode layer and a second electrode layer, wherein the first electrode material is laminally disposed on the first insulating substrate, and the second electrode material is laminally disposed on the second insulating substrate; and

a light-emitting layer disposed between the first and second insulating substrates, wherein the light-emitting layer has an electroluminescent component and a photoluminescent component, such that at least one of the luminescent components comprises group IV nanostructures.

71. (New) A method for making a subassembly for a light-emitting panel comprising:

selecting a first optically transparent insulating substrate material and a second insulting substrate material, wherein the substrate material may be laminally disposed on a building panel;

selecting a first optically transparent electrode material and a second electrode material;

formulating a printable group IV nanostructure ink composition, wherein the group IV semiconductor nanostructure is selected to emit at a specific wavelength of light; and

depositing the ink formulation as a light-emitting layer disposed between the first and second insulating substrate, wherein the first electrode material is laminally disposed on the first insulating substrate, and the second electrode material is laminally disposed on the second insulating substrate.